abcam

Product datasheet

Anti-Doublecortin antibody ab153668

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Overview

Product name	Anti-Doublecortin antibody
Description	Chicken polyclonal to Doublecortin
Host species	Chicken
Tested applications	**Suitable for:** ICC/IF, IHC-P
Species reactivity	**Reacts with:** Mouse
Immunogen	Two KLH conjugated synthetic peptides corresponding to different regions within Human Doublecortin (CAA06617.1) and mouse Doublecortin (AAT58219.1).
General notes	Do not freeze this antibody unless you want to store them for longer periods of time. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Store In the Dark.
Storage buffer	pH: 7 Preservative: 0.02% Sodium azide Constituent: 99% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgY

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab153668 in the following tested applications.

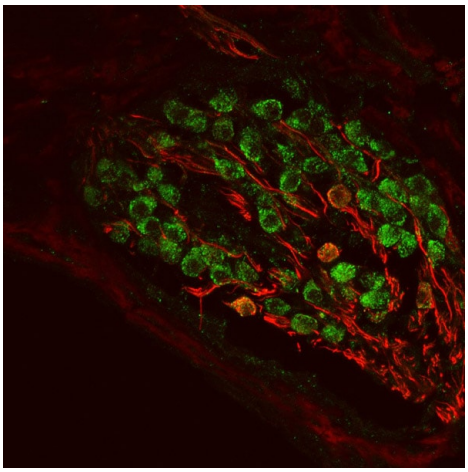
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/1000 - 1/2000. Use 2% paraformaldehyde-fixed cells.
IHC-P		1/1000. 4% PFA-fixed, paraffin-embedded section.

Target

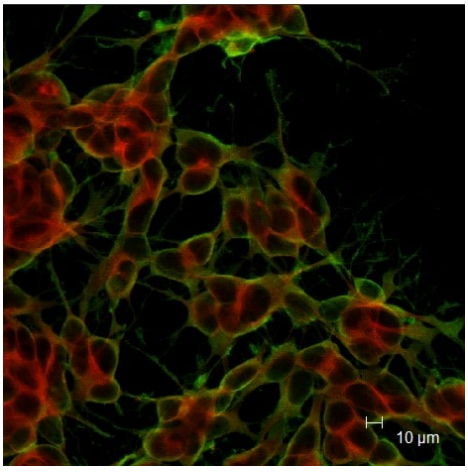
Function	Seems to be required for initial steps of neuronal dispersion and cortex lamination during cerebral cortex development. May act by competing with the putative neuronal protein kinase DCAMKL1 in binding to a target protein. May in that way participate in a signaling pathway that is crucial for neuronal interaction before and during migration, possibly as part of a calcium ion-dependent signal transduction pathway. May be part with LIS-1 of an overlapping, but distinct, signaling pathways that promote neuronal migration.
Tissue specificity	Highly expressed in neuronal cells of fetal brain (in the majority of cells of the cortical plate, intermediate zone and ventricular zone), but not expressed in other fetal tissues. In the adult, highly expressed in the brain frontal lobe, but very low expression in other regions of brain, and not detected in heart, placenta, lung, liver, skeletal muscles, kidney and pancreas.
Involvement in disease	Defects in DCX are the cause of lissencephaly X-linked type 1 (LISX1) [MIM:300067]; also called X-LIS or LIS. LISX1 is a classic lissencephaly characterized by mental retardation and seizures that are more severe in male patients. Affected boys show an abnormally thick cortex with absent or severely reduced gyri. Clinical manifestations include feeding problems, abnormal muscular tone, seizures and severe to profound psychomotor retardation. Female patients display a less severe phenotype referred to as 'doublecortex'. Defects in DCX are the cause of subcortical band heterotopia X-linked (SBHX) [MIM:300067]; also known as double cortex or subcortical laminar heterotopia (SCLH). SBHX is a mild brain malformation of the lissencephaly spectrum. It is characterized by bilateral and symmetric plates or bands of gray matter found in the central white matter between the cortex and cerebral ventricles, cerebral convolutions usually appearing normal. Note=A chromosomal aberration involving DCX is found in lissencephaly. Translocation t(X;2)(q22.3;p25.1).
Sequence similarities	Contains 2 doublecortin domains.
Cellular localization	Cytoplasm.

Images



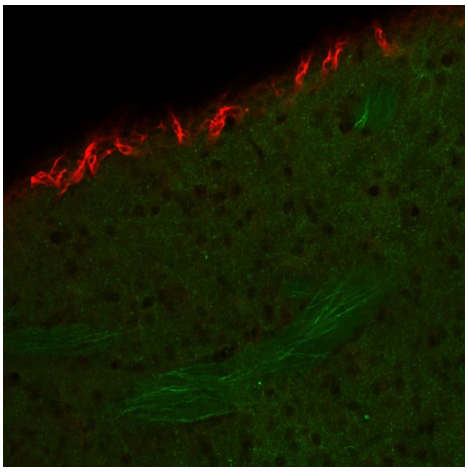
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Doublecortin antibody (ab153668)

Immunohistochemistry (4% PFA-fixed, paraffin-embedded) analysis of e18 mouse cochlear ganglion tissue labelling Doublecortin (green) with ab153668. Tissue was fixed with 4% paraformaldehyde. Red - rabbit anti-Beta-Tubulin 3.



Immunocytochemistry/ Immunofluorescence - Anti-Doublecortin antibody (ab153668)

Immunocytochemistry/Immunofluorescence analysis of SpH64 cells in culture labelling Doublecortin (green) with ab153668. Cells were fixed with 4% paraformaldehyde. Red - rabbit anti-Golgi Marker.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Doublecortin antibody (ab153668)

Immunohistochemistry (4% PFA-fixed, paraffin-embedded section) analysis of e18 mouse brain (periventricular zone) tissue labelling Doublecortin (red) with ab153668. Green - GFP autofluorescence.

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